

0069348

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0618-01 SAF-RC-001

Rad only ☒ Chem only Rad & Chem

☒ Complete Partial

300 Area 303M Bldg

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Cover Page

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revd 2/16/06

Report Identification Number: 06I-0618-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R303MO J451
Payroll#: 73338

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
09 Feb 2006	J114R9	06I04907	NMAM 7300M	G061F013	G WIPE
09 Feb 2006	J114T0	06I04908	NMAM 7300M	G061F013	G WIPE
09 Feb 2006	J114T1	06I04909	NMAM 7300M	G061F013	G WIPE
09 Feb 2006	J114T2	06I04910	NMAM 7300M	G061F013	G WIPE
09 Feb 2006	J114T3	06I04911	NMAM 7300M	G061F013	G WIPE

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Name: Joanna C. Sanchez
Title: Chemist
Date: February 15, 2006

DataChem Laboratories, Inc.
960 West Levoy Drive
Salt Lake City, Utah 84123-2547

Phone: (801) 266-7700
FAX: (801) 268-9992

Web Page: www.datachem.com
E-mail: lab@datachem.com



Case Narrative Page

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Report Identification Number: 06I-0618-01
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Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
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General Set Information: There are 4 samples in set 06I-0561-02, 7 samples in set 06I-0564-01, 4 samples in set 06I-0565-01, 4 samples in set 06I-0566-01, and 5 samples in set 06I-0618-01 which were analyzed for cadmium, lead and beryllium on Ghost Wipe. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 5 mL of nitric acid and 5 mL of ASTM Type II water. Samples were digested in a hot block set at 110°C for 60 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.02 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.07 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 2. ug/sample.

Method Blank Analysis: No beryllium, cadmium or lead was found in any of the media blank samples above the Contract Required Detection Limit (CRDL).

Dilution(s): None.



Case Narrative Page

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Laboratory Control Sample and Duplicate Analysis: Two Laboratory Control Samples (LCSs) and two Laboratory Control Sample Duplicates (LCSDs) were prepared and analyzed with the sample batch. The LCS results were within the control limits of +/- 20%. The Relative Percent Difference (RPD) between the LCSs and the LCSDs were within the control limit of 20%.

Replicate Analysis: Four samples in this batch were replicated. The RPD between the samples and the replicates was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:
Final result for aqueous samples ($\mu\text{g}/\text{sample}$) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ($\mu\text{g}/\text{L}$)

B = Concentration factor from sample preparation
= Final Volume of Digestate (L)

Sample

C = Dilution performed at time of analysis

Example Calculation: $(1 \mu\text{g}/\text{L}) \times (0.025 \text{ L}/\text{sample}) \times (1) = 0.025 \mu\text{g}/\text{sample}$

Miscellaneous Comments: The LOQ for sample 06I04583 for cadmium is 0.6 because of interference.



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Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R303MO J451
Payroll#: 73338

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/sample		Cadmium µg/sample		Lead µg/sample	
J114R9	06I04907	14 Feb 2006	<0.02	U	<0.07	U	<2.	U
J114T0	06I04908	14 Feb 2006	<0.02	U	<0.07	U	<2.	U
J114T1	06I04909	14 Feb 2006	<0.02	U	<0.07	U	<2.	U
J114T2	06I04910	14 Feb 2006	<0.02	U	<0.07	U	<2.	U
J114T3	06I04911	14 Feb 2006	<0.02	U	<0.07	U	<2.	U
Limit of Detection (LOD)			0.02		0.07		2.	
Required Detection Limit (RDL)								

U - Parameter not detected above LOD.

J - Parameter between LOD and RDL.

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Salt Lake City, Utah 84123-2547

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E-mail: lab@datachem.com



QC Summary Page

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Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF: RC-001 / R303MO J451
Payroll#: 73338

Batch ID: G061F013

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241305-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241305-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
BL-241305-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
QC-241305-1	LCS	Beryllium	µg/sample	11.3	NA	10.0	113.	NA
QC-241305-1	LCS	Cadmium	µg/sample	32.9	NA	30.0	110.	NA
QC-241305-1	LCS	Lead	µg/sample	104.	NA	100.	104.	NA
QD-241305-1	LCSD	Beryllium	µg/sample	11.0	11.3	10.0	110.	3.28
QD-241305-1	LCSD	Cadmium	µg/sample	31.8	32.9	30.0	106.	3.29
QD-241305-1	LCSD	Lead	µg/sample	102.	104.	100.	102.	2.39

MB - Method Blank

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MSD - Matrix Spike Duplicate

LD - Laboratory Duplicate

NA - Not Applicable

ND - Parameter not detected above LOD

$LCS, LCSD \text{ Percent Rec.} = (\text{Result} / \text{Target}) * 100.0$

$MS, MSD \text{ Percent Rec.} = ((\text{Result} - \text{Parent}) / \text{Target}) * 100.0$

$LCS, LCSD \text{ Relative Percent Diff.} = (|LCS - LCSD|) / ((LCS + LCSD)/2.0) * 100.$

$MS, MSD \text{ Relative Percent Diff.} = (|MS - MSD|) / ((MS + MSD)/2.0) * 100.$

$LD \text{ Relative Percent Diff.} = (|Parent - LD|) / ((Parent + LD)/2.0) * 100$

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CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: Chris Schilling		Company Contact Denise A. Pitts and Henry W. Ruby		Telephone No. 531-1229		Project Coordinator Joan H. Kessner		Data Turnaround				
Payroll #: 73338		Sampling Location 300 Area / 303m Bldg		SPECIAL INSTRUCTIONS All relevant COAs must be provided: R303m03451 ANALYSIS METHOD (SPECIFIC): NIOSH 7300 Be, Pb, Cd		SAF No. RC-001		24 hr				
Type of Sample: Be Pb Cd Wipe		Wipe Sample Media: Ghost <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Other N/A				Method of Shipment Federal Express		Bill of Lading/Air Bill No. 8544 9435 4770				
Shipped To: Dater Chem Salt Lake												
POSSIBLE SAMPLE HAZARD/REMARKS Be Pb Cd		MATRIX A - AIR WI - WIPE X - OTHER		Preservation (i.e., cooling required, etc.)		No		No				
Special Handling and/or Storage N/A						No		No				
SAMPLE ANALYSIS												
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area 100 cm ²	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne
J114R9	WI	2-9-06	N/A	Black				X		X	X	
J114T0			N/A	Black				X	N/A	X	X	
J114T1			100	N/A				X		X	X	
J114T2			100	N/A				X		X	X	
J114T3	WI	2-9-06	100	N/A				X		X	X	
FIELD SAMPLE COPY												
COPY												

Enter on line below the first Sample Number from Page One:

5114R9

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
<i>Chris Schiller</i>	2-9-06 1615	<i>Locked Cabinet Rm 16 3746 Bldg</i>	2-9-06 1615
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
<i>Golden Malhe Golden Malhan</i>	02-13-06 / 1430	<i>RZ Steffler R.Z. Steffler</i>	2-13-06 / 1430
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
<i>RZ Steffler R.Z. Steffler</i>	WCH 2-13-06 / 1600	<i>Fed Ex</i>	
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
Relinquished By/Stored:	DATE / TIME	Received By/Stored:	DATE / TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: _____ DATE: _____

PRINT/SIGN NAME